

APRIL 2007 WEATHER SUMMARY

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High pressure dominated the weather for the central California interior at the start of April, but an upper-level low west of the southern California coast pulled a fetch of subtropical moisture into the southern half of the state on the 4th. This resulted in high clouds spreading across the Hanford warning/forecast area, with some mid-level clouds at times. The airmass over the Southern Sierra Nevada became unstable during the afternoon of April 5th, resulting in isolated late afternoon thunderstorms over the high country of the Southern Sierra Nevada. Warm, moist and unstable air continued to move into the region from the south through the evening of the 5th, triggering a few thunderstorms in the Tehachapi Mountains near Frazier Park. Thunderstorms also were reported near Gorman, moving north into the Grapevine area. NOAA Doppler Weather Radar detected a few showers over the south end of the San Joaquin Valley, but these produced almost exclusively virga.

Another Pacific storm approached California on April 7th, but subsequently split, with the northern part moving into the Pacific Northwest, and the southern part into northern Baja California. This left the central California interior dry, but winds over the mountains and deserts did pick up in the wake of the remnant trough; gusts between 45 and 60 mph were observed at several sites in the Kern County mountains and deserts, and a gust to 86 mph was recorded at the Mojave airport.

The next upper-level trough reached California on April 11th-12th. This system brought measurable rain to the northern part of the Hanford warning/forecast area, with 0.08 inch of rain falling at the Merced Municipal Airport on the 11th. Neither Bakersfield nor Fresno saw measurable rain from this system, but Bear Valley Springs in the Tehachapi Mountains received an inch of new snow, and snow fell at Hume Lake. Gusty northwest winds developed over the region due a tight surface pressure gradient behind the trough, and widespread gusts of 35 to 40 mph were reported in the central and southern San Joaquin Valley on the 12th; NAS Lemoore had a peak gust of 46 mph. Stronger gusts occurred in the Kern County mountains and deserts, with one automated desert station recording a gust to 74 mph.

There was a one-day break in the unsettled weather before another upper-level system dropped out of the Gulf of Alaska into California on April 14th-15th. This system finally brought measurable precipitation to the region, with Bakersfield setting a record for rainfall on the 15th of 0.22 inch, nearly double the old record of 0.12 inch, set 40 years ago in 1967. Bakersfield had a 2-day total of 0.47 inch, more than Meadows Field saw in all of March 2007. Heavy rain and snow fell in the Kern County mountains, with 9 inches of new snow falling at Bear Valley Springs and up to 8 inches at Alpine Forest (near Tehachapi); Glennville had just over an inch of rain from the storm. A thunderstorm developed near Buttonwillow, with one lightning strike reported.

In addition to the precipitation, the storm also brought another round of gusty winds to the region, with gusts to 50 mph at Edwards AFB, to 47 mph at NAS Lemoore, and to 35 mph at the Merced Municipal Airport and China Lake NWTC.

Unsettled weather continued across the central California interior, with Pacific storms reaching the area every 2-3 days. The next storm, which was mostly dry, moved through central California during the latter part of April 16th through the 17th. The main effect of the storm was wind, as the central and southern San Joaquin Valley saw gusts of 35-45 mph, while the Kern County mountains and deserts had some gusts up to 60 mph; one isolated remote mountain station recorded a gust to 74 mph.

Next in line, an upper-level low dropped out of the Gulf of Alaska toward the northern California coast on April 19th. Light rain moved into central California that evening, and continued through the 20th as the low moved south along the coast. The push of cold air brought several degrees cooling to the region. Bakersfield had a high temperature of only 59 degrees on the 20th, breaking the old record low maximum temperature for the date of 60 degrees, set in 1985.

A stronger system followed two days later, giving Fresno 0.41 inch of rain over a 2-day period (nearly all of which fell on the 23rd). Bakersfield recorded only 0.03 inch from this storm. A ridge of high pressure built into California behind the storm, with both Fresno and Bakersfield warming 10 degrees from April 23rd to the 24th. A weak low-pressure system moved into the Pacific Northwest on the 25th, deepening the marine layer along the coast and resulting in a push of marine air through the Sacramento Delta into the San Joaquin Valley. This surge of cool air negated much of the warming experienced the previous day, with high temperatures in the southern San Joaquin Valley on April 25th as much as 7 degrees cooler than the 24th.

High pressure aloft rebuilt into California on the 26th, and pushed central and southern San Joaquin Valley highs into the lower to mid 90s on April 27th. Both Bakersfield and Fresno had their first 90-degree day of the year with temperatures running 12-15 degrees above normal. The high pressure was the strongest on the 28th, with high temperatures reaching record levels at Bakersfield, Fresno and Edwards Air Force Base; and Coalinga reported a high of 100.

An upper-level trough approached the Pacific coast on the 29th and 30th, bringing areas of high clouds to the central California interior, and 8-12 degrees cooling to the central and southern San Joaquin Valley. Even so, temperatures on April 30th were still 6-10 degrees above normal.